**Keywords: § 101 step 1 analysis for patent subject matter, 35 U.S.C. § 101**

**General: If a claim is specific and not preemptive, it can be valid under § 101.**

***McRO, Inc. DBA Planet Blue v. Bandai Namco Games America Inc.,***
United States Court of Appeals for the Federal Circuit
Nos. 2015-1080, -1081, -1082, -1083, -1084, -1085, -1086, -1087, -1088, -1089, -1090, -1092, -1093, -1094, -1095, -1096, -1097, -1098, -1099, -1100, -1101
Decided: September 13, 2016

## I. Background

McRO filed suit against Bandai and twenty three other technology companies alleging infringement of claims of the U.S. Patents Nos. 6,307,576 ("the '576 patent") and 6,611,278 ("the '278 patent"). The United States District Court for the Central Disctrict of California found the asserted claims directed to patent-ineligible subject matter and therefore invalid under 35 U.S.C. § 101 ("§ 101"). In response, McRO appealed the judgment.

The prior art taught mapping the face into a set of vertices and creating a unique arrangement of the vertices that corresponded to each phoneme. Each arrangement of vertices would be boiled down to a 'morph weight' which quickly and easily defines each set of vertices corresponding to each phoneme. The 3-D animator would then have to manually transform the 3-D model from one morph weight to the desired morph weight, which was a tedious process that required considerable skill to make the face look natural. Both the '576 and '278 patents solved this tedious process by automating the facial expressions of a 3-D model of a character. MCRO's method of doing this is exemplified by claim 1 of the '576 patent, the only claim analyzed by the Federal Circuit, which provides,

> A method for automatically animating lip synchronization and facial expression of three-dimensional characters comprising:
>
> obtaining a first set of rules that define output morph weight set stream as a function of phoneme sequence and time of said phoneme sequence;
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> obtaining a timed data file of phonemes having a plurality of sub-sequences;
>
> generating an intermediate stream of output morph weight sets and a plurality of transition parameters between two adjacent morph weight sets by evaluating said plurality of sub-sequences against said first set of rules;
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> generating a final stream of output morph weight sets at a desired frame rate from said intermediate stream of output morph weight sets and said plurality of transition parameters; and
>
> applying said final stream of output morph weight sets to a sequence of animated characters to produce lip synchronization and facial expression control of said animated characters.

## II. Issue

Are the claims directed to patent ineligible subject matter and therefore invalid under 35 U.S.C. § 101?

## III. Discussion

No. The Federal Circuit held that the claims are directed to patent eligible subject matter and therefore valid under 35 U.S.C. § 101.

The Federal Circuit applied the two-step framework from Alice in analyzing whether claims are patent eligible. First, the Federal Circuit determines whether the claims at issue are directed to a judicial exception, such as an abstract idea. If the claims are directed to an abstract idea, the inquiry ends, but if the claims are directed to an abstract idea, the Federal Circuit proceeds to the second step. In step two, the Federal Circuit considers whether the claims contain an inventive concept sufficient to transform the nature of the claim into a patent-eligible application.

In applying the first step of the Alice framework, the Federal Circuit tried to provide some guidance by looking at 1.) Specific limitations within the claim, and 2.) Whether the claims are directed to merely automating conventional activity. For part 1, the Federal Circuit is concerned with preventing claims where "'it matters not by what process or machinery the result is accomplished.'" The Federal Circuit continued, "a patent may issue 'for the means or method of producing a certain result, or effect, and not for the result or effect produced.'" The Federal Circuit also stated, "the concern underlying the exceptions to § 101 is not tangibility, but preemption.

Unfortunately, the Federal Circuit did not clearly walk through their own structure, and instead focused first on whether or not this was simply automating conventional activity and second on whether the claims preempted all processes for achieving automated lip-synchronization of 3-D characters. The Federal Circuit reasoned that this is not simply automating conventional activity because even if the conventional activity were automated by rules, it would not reach the level of detail described in the claims. Further, "it is the incorporation of the claimed rules, not the use of the computer, that 'improved [the] existing technological process' by allowing the automation of further tasks."

The Federal Circuit then turned to the question of preemption. The Federal Circuit first found that motion capture animation provides another means of automatically animating lip synchronization and facial expressions, but this one alternative was not enough to prevent preemption. The preemption concern was narrowed to whether the claim preempted 3-D animation that relies on rules. The Federal Circuit noted that there was no evidence presented by the defendants claiming that this was the only method that relies on rules, and further pointed to an Amicus that explained the interaction between vocalization and facial expressions is very complex. The Federal Circuit reasoned that this complexity means that there are alternative rules-based methods available.

## IV. Conclusion

Because the claims were directed to a specific technique that does not preempt all techniques and the specific technique was not used nor would likely be used by animators, the Federal Circuit found that claim 1 of the '576 patent is directed to eligible subject matter under 35 U.S.C. § 101.